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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.			TRAN, QUOC A	
P.O. BOX 293 MINNEAPOL	38 JIS, MN 55402		ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.



			10/12
	Application No.	Applicant(s)	
	09/699,530	TOLPIN, DAVID	1
Office Action Summary	Examiner	Art Unit	
	Quoc A. Tran	2176	
The MAILING DATE of this communication ap Period for Reply	opears on the cover sheet	with the correspondence address -	-
A SHORTENED STATUTORY PERIOD FOR REPITHE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a re - If NO period for reply is specified above, the maximum statutory perior - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mailie earned patent term adjustment. See 37 CFR 1.704(b).	. 136(a). In no event, however, may ply within the statutory minimum of t d will apply and will expire SIX (6) Mite, cause the application to become	a reply be timely filed nirty (30) days will be considered timely. DNTHS from the mailing date of this communica ABANDONED (35 U.S.C. § 133).	ition.
Status			
 1) Responsive to communication(s) filed on 05/2a) 2a) This action is FINAL. 2b) Th 3) Since this application is in condition for allow closed in accordance with the practice under 	is action is non-final. ance except for formal ma		s is
Disposition of Claims			
4) ☐ Claim(s) 1-20 is/are pending in the application 4a) Of the above claim(s) is/are withdress 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-20 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/	awn from consideration.		
Application Papers			
9) The specification is objected to by the Examir 10) The drawing(s) filed on is/are: a) according a constant may not request that any objection to the Replacement drawing sheet(s) including the correct of the second se	ccepted or b) objected t e drawing(s) be held in abey ection is required if the drawin	ance. See 37 CFR 1.85(a). ng(s) is objected to. See 37 CFR 1.12	
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bure * See the attached detailed Office action for a list	nts have been received. nts have been received in ority documents have bee au (PCT Rule 17.2(a)).	Application No en received in this National Stage	
Attachment(s)			
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0-Paper No(s)/Mail Date 05/15/2004. 	Paper N	v Summary (PTO-413) o(s)/Mail Date f Informal Patent Application (PTO-152)	

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DETAILED ACTION

1. This action is responsive o Amendment A, filed 05/14/2004.

2. Claims 1-20 are currently pending in this application. Claims 1, 9, and 17 are independent claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Is Applicant claiming a method of inserting "footnotes", that are on a compute-readable medium, or a method of inserting "footnotes" said method implemented in a computer-readable medium. Furthermore, how is the method implemented in a computer-readable medium? The method can be encoded in a computer-readable medium and implemented when read from that particular medium. Clarification and/or correction are required.

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5. Claims 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Is Applicant claiming a method of managing rendered "footnotes", that are on a compute-readable medium, or a method of managing rendered "footnotes" said method implemented in a computer-readable medium. Furthermore, how is the method implemented in a computer-readable medium? The method can be encoded in a computer-readable medium and implemented when read from that particular medium. Clarification and/or correction are required.

6. In regards to claims 1-8, and 17-20, because as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards in the invention. Examiner interprets, as a computer implemented method of inserting "footnotes", and a computer implemented method of managing rendered "footnotes".

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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8. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As to independent claims 1, 9, and 17, the claimed invention is not tied to the technological art environment or machine. The claimed invention is not embodied on a computer readable medium, nor are the "executable instructions" explicitly recited as being carried out, or functionally tied in, to a computer environment. Therefore, the claims read on steps that could be carried out mentally and/or using paper and pencil. For example, a method of inserting "footnotes", a method of rendered "footnotes", furthermore, a method of managing rendered "footnotes", the claims read on steps that could be carried out mentally and/or using paper and pencil.

As to dependent claims 2-8, 10-16 and 18-20 also are not tied to the technological art environment or machine, and are rejected under the same rationale.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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10. Claims 1-6, and 9-16 are rejected under 35 U.S.C. 102(b) as being unpatentable over Chirokas et al. US Patent No. 5,111,397 issued 05/05/1992 filed 12/11/1989 (hereinafter '397).

In regard to independent claim 1, as taught by '397 at col. 1, lines 41-42, the body and footnote texts have been entered; compare with claim 1 "receiving non footnote body data and footnote body data",

Also as taught by '397 at col. 1, lines 43-44, assemble all body and footnote texts into respective pages; compare with claim 1 "inserting the non footnote body data into one or more first locations within a media".

Also as taught by '397 at col. 5, lines 5-45, In FIG. 1, page -1- of the output document contains 46 lines of body text with 3 footnote references 1), 2) and 3) The text of Footnote 1) requires only a single line, but the texts of Footnotes 2) and 3) are lengthy and do not fit in the space remaining on page -1-. In FIG. 2 the minimum single line of body text is provided and no more was assembled because the aforementioned second style requirements give priority to footnote text before a second line of body text. In this example the remaining lines of the page are all needed for footnotes whether for footnotes continuing from page -1 or for new Footnotes 4) and 5) referenced on page 2 line 6. Accordingly, other results of the second style requirements should be explained. Specifically, after the minimum two lines of every footnote has been processed and the single line of footnote 4) has been

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included, the remaining vacant lines of the output page -2- are first used for footnote 2), which is shown to be completed. The remaining vacant lines are then used for continuing more text of Footnote 3) and no more is available for more text of incomplete footnote 5; compare with claim 1 "inverting the non footnote body data to one or more second locations when the footnote body data are inserted into the media, wherein the footnote body data temporarily occupies portions of the one or more first locations, and restoring the non footnote body data into at least some of the first locations with the footnote body data occupying at least some of the one or more of the second location", also as taught by '397 at col. 6, lines 60-67 (i.e. ... the last good line" structure is updated including the necessary line ending variables. The program then returns to block 201 of FIG. 6 and the process of assembling the next line of body text is started (i.e. revert/invert the order of last good line into first of new text).

In regard to dependent claim 2, as taught by '397 at col. 2, lines 12-14, body text is always on every page because they place a maximum line limitation on each page for footnote text; compare with claim 2 "associating a dimension with a logical unit of the media".

In regard to dependent claim 3, as taught by '397 at col. 1, lines 56-59, first footnote is referenced and only part of the footnote text fits on the remaining lines available on that page, it is known to continue the remaining footnote text on as many subsequent pages as needed to complete the footnote; compare with claim 3 "the first locations occur sequentially before the second locations within the media".

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In regard to dependent claim 4, as taught by '397 at col. 2, lines 39-54, pagination/repagination utility program which produces the output pages...; compare with claim 4 "logical unit is an output page".

In regard to dependent claim 5, as taught by '397 at col. 1, lines 37-40, The operator can then recall the body text display and continue typing further body text until the next footnote reference point is reached; compare with claim 5 "continuing to insert the footnote body data to a second output page when the output page is populated and the footnote body data are not completely inserted into the media".

In regard to dependent claim 6, as taught by '397 at col. 1, lines 30-35, at the footnote reference point, a menu is called from which a footnote task is selected. This causes the display to change to a footnote text display and the operator then types in the footnote text; compare with claim 6 "receiving a citation data associated with the non footnote body data prior to inserting the footnote body data".

In regard to independent claim 9, "receiving data including non footnote data and footnote data having one or more footnote citations and one or more footnote bodies, inserting the non footnote data and at least one footnote citation serially into a media; interrupting the insertion when at least one footnote citation is detected and inverting a start location and an end location associated with a unit of the media such that the end location houses the non footnote data and at least one of the footnote citations while at least one of the footnote bodies are inserted serially at a start location within the media. Wherein the inverting temporarily moves the non-footnote data to the end location of the unit of media and permits at least one of the footnote bodies to be

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inserted to the start location of the unit of media, which was previously occupied by portions of the non footnote data; and swapping the start location and the end location after inserting at least one of the footnote bodies such that the non footnote data and at least one of the footnote citations are located at the start location and at least one of the footnote bodies are located at the end location", as taught by '397 col. 5, lines 3-44 (i.e.. In FIG. 1, page -1- of the output document contains 46 lines of body text with 3 footnote references 1), 2) and 3) The text of Footnote 1) requires only a single line, but the texts of Footnotes 2) and 3) are lengthy and do not fit in the space remaining on page -1-. It should be noted that the present invention has provided, as a result of the first style requirements, at least two lines of text for the lengthy footnotes (Footnotes 2) and 3)) along with continuation messages 16 and 18 Although the use of a CONTINUED TO message for referring a reader to the another page...), and also as taught by '397 at col. 7, line8 through col. 8, line 5 (i.e.... a determination is made of the number of footnotes to be processed... number is calculated by adding the number of cascading footnotes to the number of new footnotes that are referenced in the line of body text being assembled for the output document. Next, a loop is executed for processing two lines of each footnote. For cascading footnotes the lines for the "CONTINUED FROM" messages are added to the page... the program will return back to the calling routine and begin the "last good line" process of FIGS. 7A and 7B... If there is a violation, the program proceeds to block 310 and the "last good line" process is begun... A user 800 interacts with menus 802 for providing information such as headers, footers, page length in lines and what input document 804 is to be paginated...).

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In regard to dependent claim 10, the feature is taught in '397 at col. 2, lines 12-14, body text is always on every page because they place a maximum line limitation on each page for footnote text; compare with claim 10, "the unit of the media is associated with a dimension".

In regard to dependent claim 11, the feature is taught in '397 at col. 1, lines 48-50, all referenced footnotes fit on the bottom of an output page of the output document; compare with claim 11 "unit of the media is a page".

In regard to dependent claim 12, the feature is teaches in '397 col. 2, line 2, footnotes having text; compare with claim 12, "the non footnote data includes at least one of text data, image data, audio data, and video data".

In regard to dependent claim 13, the feature is taught in '397 at col. 6, lines 30-40, when the flow path proceeds ... and the line being assembled does not fit on the output page, the path leads to ... "last good line" which is the last line of body text that did not violate any rules of style. The output page then ends with the recalled "last good line." Continuing along this path results in the footnotes that were processed after the last good line to be removed from the footnote queue. Those removed footnotes are then available for inclusion in the next output page to be assembled; compare with claim 13, "managing the start and end locations within the unit of media using one or more pointers".

In regard to dependent claim 14, the feature is taught in '397 at col. 1, lines 55-64, first footnote is referenced and only part of the footnote text fits on the

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remaining lines available on that page, it is known to continue the remaining footnote text on as many subsequent pages as needed to complete the footnote. If a second or additional footnote references are also on the same body text line containing the first footnote reference, the text of these other footnotes will not appear on the same page where they are referenced; compare with claim 14, "inserting a remaining portion of at least one of the footnote bodies to a subsequent unit of the media when a space associated with the unit of media becomes fully occupied during the insertion of at least one of the footnote bodies".

In regard to dependent claim 15, the feature is taught in '397 at col. 1, lines 53-55, there is a general rule of document style that all footnotes should appear on the same page containing the body text where they referenced; compare with claim 15, "associating dynamically resizable geometric areas within the unit of the media to house the footnote data and the non footnote data".

In regard to dependent claim 16, the feature is taught in '397 at col. 1, lines 48-50, all referenced footnotes fit on the bottom of an output page of the output document (common knowledge in the art, a page's dimension is commonly in a rectangular shape); compare with claim 16, "associating dynamically resizable geometric areas within the unit of the media to house the footnote data and the non footnote data".

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11. Claims 17-20 are rejected under 35 U.S.C. 102(b) as being unpatentable over Cuan et al. US Patent No. 4,503,515 issued 03/05/1985 filed 05/17/1982 (hereinafter '515).

In regard to independent claim 17, as taught by '515 at col. 2, lines 61-63, automatic system reference/footnote numbering and updating are provided in a single pass through the document; compare with claim 17 "associating an entry path for receiving footnote data with the unit of media",

Also as taught by '515 at col. 1, lines 64-66, during preparation, body text is keyed to a body text frame up to a reference point, a footnote reference number is keyed, a footnote frame is called, a corresponding footnote number is keyed, text for the footnote is keyed, and then the body text frame is recalled; compare with claim 17 "associating a second path for receiving non footnote body data with the unit of media".

Also as taught by '515 at col. 2, lines 45-55, the operator can hyphenate the document, adjust line endings, cause page ending decisions and associated window/orphan line decisions to be made, and cause printing of the document in a single pass operation. Following input keying of the body and footnote text, operator procedure calls for causing the system to assemble the body and footnote text. The assembly operation involves combined merge and pagination operations to which either one of two separate algorithms are acceptable; compare with claim 17

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"inverting a first location on the unit of media associated with the second path with an ending location. Associated with the entry path for purposes of inserting the footnote data into the unit of media", also as taught by '515 at col. 19, line 60 through col. 20, line 10 (i.e... managing the assembly of body and footnote text is provided in order that an operator may format and assemble footnote text in a document. Format and assembly of the footnote text can be either at the bottom of pages of the document or at the end of the document. In addition, according to the method and system of this invention, the operator can hyphenate the document, adjust line endings, cause page ending decisions and associated widow/orphan line decisions to be made, and cause printing of the document in a single pass operation. Following input keying of the body and footnote text, operator procedure calls for causing the system to assemble the body and footnote text. The assembly operation involves combined merge and pagination operations to which either one of two separate algorithms is acceptable. ... This determination is on a per page basis.... Thereafter, the document is ready to be printed).

In regard to dependent claim 18, the feature is taught in '515 at col. 2, lines 61-63, If footnotes are inserted, moved, or deleted from the assembled document, then the document must be reassembled to renumber the footnotes; compare with claim 18, "restoring the first location associated with the second path and the ending location associated with the entry path for purposes of inserting the non footnote data body into the unit of media".

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In regard to dependent claim 19, the feature is taught in '515 at col. 15, lines 36-45, routine RSOLVE to perform the actual resolution of footnote references. Its function is to resolve each footnote reference control that the paginator encountered after adjusting the cursored body text line. It is already assumed that there is room at the bottom of the page for at least one more footnote text line and that the footnote placement is the bottom of page, not bottom of document; compare with claim 19, "extending the entry path to a subsequent unit of media when the unit of media is full and insertion of all of the footnote data is not complete".

In regard to dependent claim 20, the feature is taught in '515 at col. 15, lines 46-55, all of the footnotes on a page can be copied and formatted into the formatted footnote TSB (140); compare with claim 20, "formatting the footnote data and the non footnote body data within the unit of media after insertion".

Claim Rejections - 35 USC § 103

- 12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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13. Claims 7- 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chirokas et al. US Patent No. 5,111,397 issued 05/05/1992 filed 12/11/1989 (hereinafter '397), in view of Ferrel et al. US Patent No. 5,860,073 issued 01/12/1999 filed 07/17/1995 (hereinafter '073).

Claim 7 is representing of claim 8;

In regard to dependent claim 7, '397 does not explicitly teach, "the non footnote body data and the footnote body data are received in an extensible Stylesheet language format", however, as taught by '073 at col. 1 lines 50-55, (i.e....a style sheet, as used in Microsoft Word, is a compilation of character and paragraph styles, with each style containing properties for formatting marked text. These style sheets are associated with a particular document to define how marked characters and paragraphs are displayed to the use...).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of '397 that including the function, wherein the extensible Stylesheet language is the receiving format for the non footnote body data and the footnote body data. One of ordinary skill would be motivated to perform such a modification to easily modify, update the design layout, such as updating the character and paragraph style, since the content of the information is separated from the design layout, as taught by '073 at col. 2, line 60 through col. 3, line 5 (i.e....to modify...design layout...).

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In regard to dependent claim 8, "rendering the non footnote body data and the footnote body data to an alternative format prior to insertion within the media", as taught by '073 at col. 1 lines 15-20, (i.e.... display regions in a page do not contain any text at the time the style sheet is applied. Rather, the text is poured into the region when the title is displayed (also termed rendered) on the customer's computer...).

Response to Argument

14. Applicant's arguments filed 05/14/2004 have been fully considered but they are not persuasive.

In response to applicant's arguments on page 6, claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Is Applicant claiming a method of inserting "footnotes", that are on a compute-readable medium, or a method of inserting "footnotes" said method implemented in a computer-readable medium. Furthermore, how is the method implemented in a computer-readable medium? The method can be encoded in a computer-readable medium and implemented when read from that particular medium. There for claims 1-8 remain rejected.

In response to applicant's arguments on page 6, claims 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out

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and distinctly claim the subject matter which applicant regards as the invention. Is

Applicant claiming a method of managing rendered "footnotes", that are on a computereadable medium, or a method of managing rendered "footnotes" said method
implemented in a computer-readable medium. Furthermore, how is the method
implemented in a computer-readable medium? The method can be encoded in a
computer-readable medium and implemented when read from that particular medium.
There for claims 17-20 remain rejected.

In response to applicant's arguments on page 6, claims 1-20, the claimed invention is not tied to the technological art environment or machine. The claimed invention is not embodied on a computer readable medium, nor are the "executable instructions" explicitly recited as being carried out, or functionally tied in, to a computer environment. Therefore, the claims read on steps that could be carried out mentally and/or using paper and pencil. For example, a method of inserting "footnotes", a method of rendered "footnotes", furthermore, a method of managing rendered "footnotes", the claims read on steps that could be carried out mentally and/or using paper and pencil. There for claims 1-20 remain rejected.

In response to applicant's arguments in regards to claims 1, and 9 on page 7, that '397 does not teach all the limitations, particularly insert footnotes body data. The examiner respectfully disagrees, as taught by '397 at col. 1, lines 41-42, the body and footnote texts have been entered, also as taught by '397 at col. 1, lines 43-44, (i.e... assemble all body and footnote texts into respective pages...); it is clearly

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instituted the limitation of "insert footnote body data". Further, Applicant's argue, that when footnote body data is inserted, the non footnote body data is dynamically moved to second locations by inverting within the media. This ensures that footnote body data will fit within the media. The examiner respectfully disagrees, It is noted that the features upon which applicant relies (i.e., the non footnote body data is dynamically moved to second locations by inverting ... are not recited in the rejected claim(s). Therefore claims 1, and 9 remain rejected. Since the independent claims 1, and 9 are remain rejected lead to the rejection of their dependency claims 2-8, and 10-16 as well.

In response to applicant's arguments in regards to claims, 17-20 on page 8, that '515 does not teach the limitation of "inverting". The examiner respectfully disagrees, as taught by '515 at col. 19, line 60 through col. 20, line 10 (i.e.... managing the assembly of body and footnote text is provided in order that an operator may format and assemble footnote text in a document. Format and assembly of the footnote text can be either at the bottom of pages of the document or at the end of the document. In addition, according to the method and system of this invention, the operator can hyphenate the document, adjust line endings, cause page ending decisions and associated widow/orphan line decisions to be made, and cause printing of the document in a single pass operation. Following input keying of the body and footnote text, operator procedure calls for causing the system to assemble the body and footnote text. The assembly operation involves combined merge and pagination operations (i.e. Examiner interprets, as changing the order of footnote body data from end of page to beginning is the same as reverting/inverting the order) to which either one of two separate algorithms is

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Acceptable ... This determination is on a per page basis.... Thereafter, the document is ready to be printed). Therefore claims 17-20 remain rejected.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc A. Tran whose telephone number is (703) 305-8781. The examiner can normally be reached on Monday through Friday from 8:30AM to 5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (703) 305-9792. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JOSEPH FEILD SUPERVISORY PATENT EXAMINER

Quoc A. Tran
Patent Examiner
Technology Center 2176
August 8, 2004